



Chapter 1: Introduction



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This chapter introduces the South Wilmington Special Area Management Plan (SAMP) project and the socioeconomic profile for South Wilmington, Delaware. Also included in the chapter are an overview of the SAMP development process and a discussion of the role of the socioeconomic profile in that development process. Data collection and presentation methods for information in the report and the South Wilmington environmental setting are also described.

1.a. Background: South Wilmington Special Area Management Plan

The city of Wilmington, Delaware, is located along the confluence of the Delaware, Christina, and Brandywine Rivers. Recent efforts to revitalize the city have focused on the northern side of the Christina River; the region of the city located on the southern side of the river, an area known as South Wilmington, has remained largely underutilized. For purposes of the SAMP, South Wilmington is defined as an area of approximately 1.6 square miles, bounded by the Christina River to the north, east, and west, and Interstate-495 to the south, as shown in the map on the following page (Figure 1.1.). This area includes the historic residential community of Southbridge, as well as points to the south of Southbridge that lie outside of the City of Wilmington along the New Castle/Route 9 Corridor. The South Wilmington area defined by the SAMP lies adjacent to the Port of Wilmington, is zoned for a range of mixed uses, and is also the site of a variety of heavy and light industrial facilities and tracts of undeveloped upland and wetlands. The South Wilmington area is facing a variety of environmental problems.

Delaware Coastal Programs, within the Department of Natural Resources and Environmental Control, received funding from the National Oceanic and Atmospheric Administration to develop a SAMP for the South Wilmington, Delaware area. As defined under the federal Coastal Zone Management Act, a SAMP is a long-term comprehensive plan that encourages natural resource protection and reasonable coastal-dependent economic growth in areas within the coastal zone [Federal Coastal Zone Management Act of 1972, 15 U.S.C.A Section 1453(17)]. Development of the South Wilmington SAMP will bring together community members and organizations, business leaders, and representatives from city, state, and federal government organizations, with the intention of enhancing the environmental and economic wellbeing of South Wilmington.

The South Wilmington area was selected for a SAMP because of its strong economic and community revitalization potential. Despite the area's prime riverfront location, property values in South Wilmington have remained relatively low due to several environmental, economic, and social issues. Environmental problems in the area include serious flooding, degraded wetlands, and soil contamination from past industrial activities. The area has had difficulty attracting and retaining retail businesses to provide services and employment for community residents. In spite of these issues, several factors make the area an ideal site for revitalization efforts, including location, Southbridge's historically strong sense of community, and the area's potential for environmental improvements and economic development. Managing the environmental, economic, and social issues facing the area and maximizing growth potential in a manner that will not uproot the Southbridge residential community requires careful, coordinated planning.

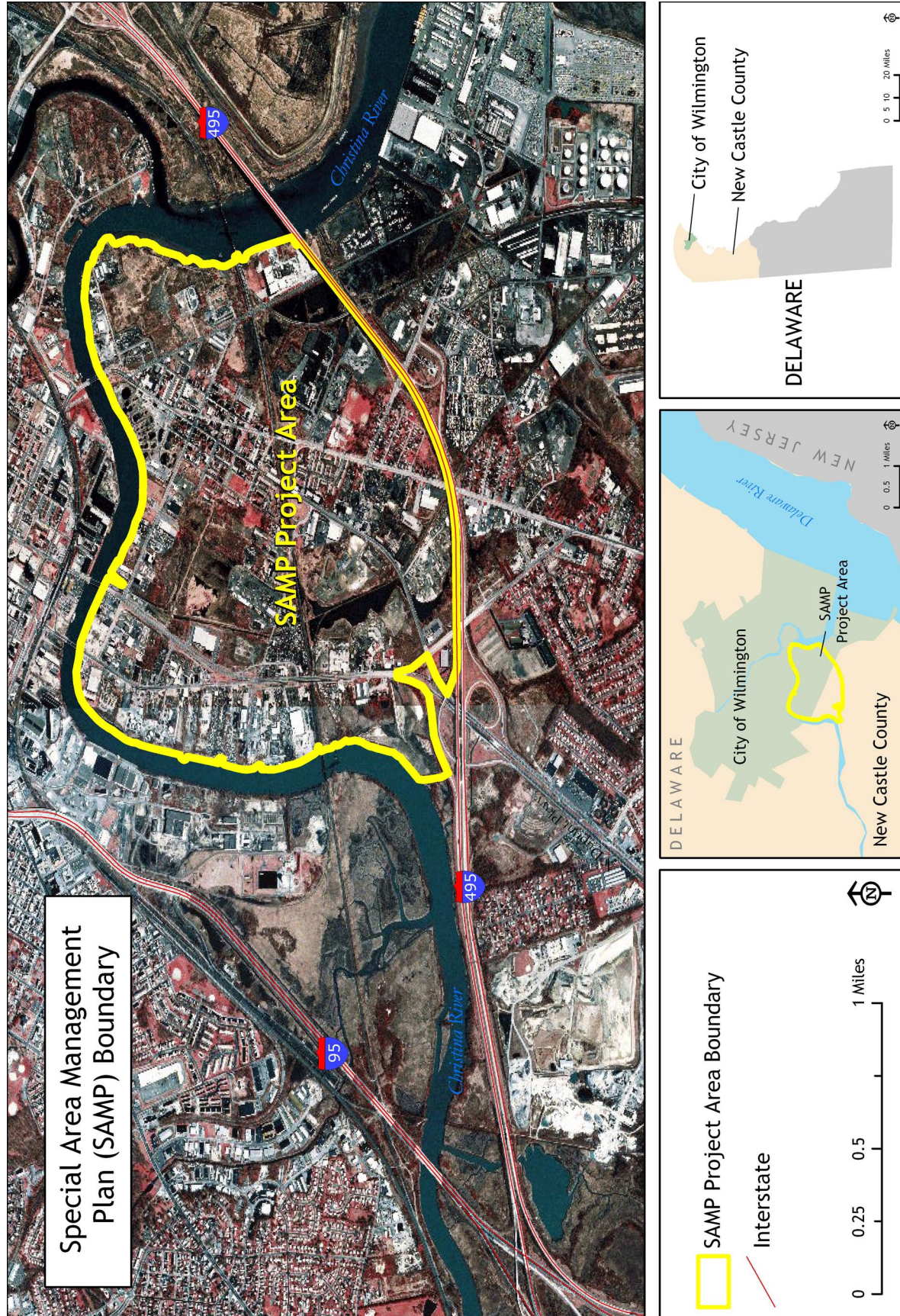


Figure 1.1. South Wilmington Special Area Management Plan (SAMP) project area.

Source: *Delaware Coastal Programs, 2005; Color-IR Digital Orthophotos, 1992*

The South Wilmington SAMP provides an opportunity for collaborative and comprehensive planning to address the environmental, social, and economic issues, and needs of those affected by revitalization in South Wilmington. Development of the South Wilmington SAMP is being accomplished through the ongoing development of six planning documents: ♦ Neighborhood Plan, ♦ Legal Authorities Inventory and Review, ♦ Ecological Characterization, ♦ Non-Residential Economic Development Plan, ♦ Drainage Improvement Plan, and ♦ Public Engagement and Outreach Plan. The final SAMP will combine the results and recommendations of these documents into a comprehensive action plan to guide the revitalization of South Wilmington.

1.b. Purpose: The South Wilmington Socioeconomic Profile Report

This South Wilmington socioeconomic profile report was prepared as a component of the Ecological Characterization planning document mentioned above. The report is a compilation and synthesis of information from existing sources about recent social and economic characteristics of South Wilmington, Delaware. While the report presents socioeconomic data, it does not analyze or draw conclusions about the information. Rather, the report's purposes are to support the development of the SAMP and to provide a baseline from which to measure the impacts of SAMP implementation.

Socioeconomic information can provide an important perspective on the individuals, businesses, and human activities within an area. Such a perspective is important to ensuring that planning and implementing restoration and revitalization efforts meet the social, economic, and environmental needs of a community. Socioeconomic information can help to guide public policy decisions needed to move forward with growth and development. For example, employment and income characteristics can serve as indicators of general prosperity in an area and, when combined with demographic information such as education, can be used to identify gaps in job availability or to provide insight into potential areas for future growth. Current land use and development information can help to identify areas for future development or restoration and can be used to identify the demand for resources in a particular area. Examining the age range of a community population can help to identify needs, such as schools or nursing homes. Socioeconomic information can thus help in developing a SAMP that will protect natural resources while meeting community needs and encouraging economic growth. The contents of this report are designed to support the preparation of multiple components of the SAMP, including the Ecological Characterization, the Neighborhood Plan, and the Non-Residential Economic Development Plan.

This report, by providing a relatively comprehensive snapshot of the current socioeconomic characteristics of South Wilmington, provides critical baseline information from which to measure the impacts of SAMP implementation. The report also provides an example for other coastal communities interested in developing and understanding their socioeconomic baselines for planning and revitalization purposes.

1.c. Data Collection and Presentation Methods

This section provides overviews of the methods used to collect and display the data in this report. All readily-available data sources were investigated; the most reliable, accurate, and up-to-date information was selected for inclusion. Data sources are listed below each graph and table throughout the report.

The information presented in this report was selected based upon input from, and prioritization by, the SAMP Ecological Characterization and Core Management Workgroups. Key criteria for data inclusion included: high priority, as determined by the Ecological Characterization and Core Management Workgroups; data availability; and feasibility of inclusion based on time constraints for report preparation. The Core Management Workgroup is overseeing the efforts of the individual workgroups (including the Ecological Characterization Workgroup) in preparing the six different SAMP components discussed earlier in this chapter; the Core Management Workgroup is comprised of representatives from South Wilmington, the City of Wilmington, and New Castle County; South Wilmington community members; and area businesses. The Ecological Characterization Workgroup is responsible for drafting the Ecological Characterization portion of the South Wilmington SAMP. For additional details regarding the activities of the SAMP working groups, refer to the South Wilmington SAMP Web site

(<http://www.dnrec.state.de.us/dnrec2000/Divisions/Soil/dcmp/WilmSAMP/SAMP.htm>).

U.S. Census Bureau data

Throughout the report, data are presented from the U.S. Census Bureau (Census); these data were obtained via the Spatial Trends in Coastal Socioeconomics (STICS) Web site (<http://stics.noaa.gov>) and from Geolytics, Inc. (2003). All Census data are presented from Census 2000.

The U.S. Census Bureau tabulates and releases data according to Census-defined and political geographic units (geographies). Census geographies provide a framework for interpreting, analyzing, and understanding Census data. The Census classifies all geographic entities into two broad categories: legal and administrative entities and statistical entities (U.S. Census Bureau, 2002). The geographies used in this report follow the geographical hierarchy illustrated in Figure 1.2 and listed below (from smallest area to largest area):

- ◆ Block
 - ◆ Block group
 - ◆ Census tract
 - ◆ County

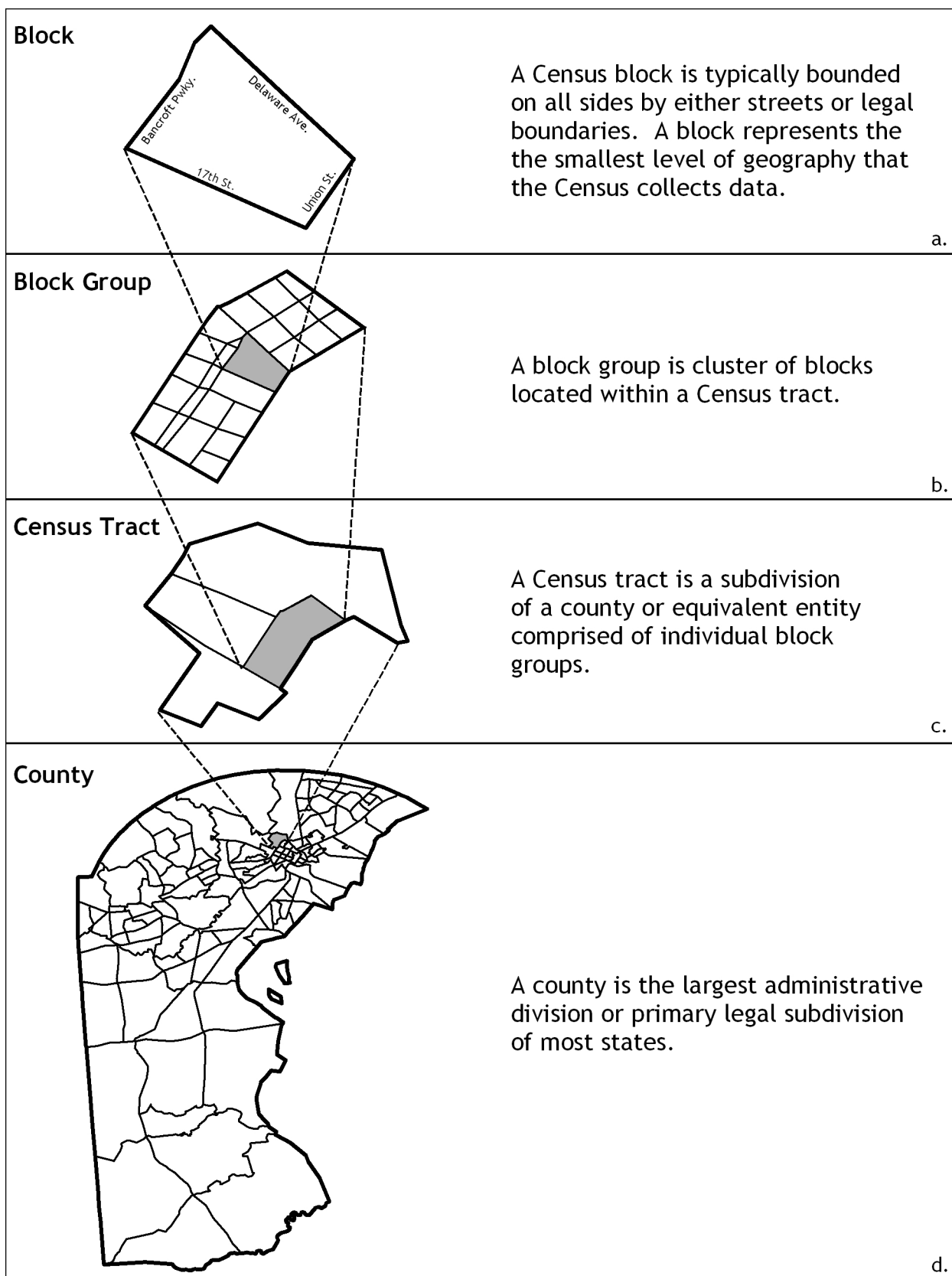


Figure 1.2. Illustration of Census geographies used in the socioeconomic profile report.
Sources: U.S. Census Bureau, 2001; 2000

Acknowledging that most previous socioeconomic descriptions of South Wilmington have successfully used Census Tract 19 as a study area, for the purposes of this report, Census data are presented using the blocks and block groups described below. Unlike Census Tract 19, data from the smaller geographies made of blocks and block groups can be combined to more closely match the SAMP Project Area, which is the specific area shown in Figure 1.1. and targeted for revitalization through the South Wilmington SAMP process.

Data are presented in this report at the following four Census-bounded study areas:

- ♦ *South Wilmington Census blocks*: Data for each of the 91 Census blocks shown in Figure 1.3. were aggregated and the resulting sums are herein presented as values for the “South Wilmington blocks-level study area.” The cumulative area represented by the selected 91 blocks most closely matches the area SAMP Project Area shown in Figure 1.1.
- ♦ *South Wilmington Census block groups*: Data for each of the four Census block groups shown in Figure 1.4. were aggregated and the resulting sums are herein presented as values for the “South Wilmington block groups-level study area.” The cumulative area of these four block groups closely match the area defined in the SAMP, but also include some areas outside of the area targeted in the SAMP.
- ♦ *City of Wilmington*: Data are presented from the 27 Census tracts that represent the City of Wilmington proper and also encompass a large portion of South Wilmington. The area representing the City of Wilmington is shown in the inset maps on Figures 1.3. and 1.4.
- ♦ *New Castle County*: Data are presented from the 127 Census tracts that cover New Castle County and also encompass the City of Wilmington and South Wilmington. The area representing New Castle County is shown in the inset maps on Figures 1.3. and 1.4.

Specific Census geographic codes for each of the above geographies can be found Appendix A. For additional details regarding the selection of geographies used in the report, please refer to Appendix B.

In Chapters 2, 3, and 4, Census data for the City of Wilmington and New Castle County are presented relative to data for South Wilmington for comparative purposes only.

The study area for non-Census data presentations in Chapters 6, 7, 8, and 9 is represented by the 91 Census blocks, which define the blocks-level study area shown in Figure 1.3.; this study area is not to be confused with the SAMP Project Area, which is shown in Figure 1.1.

In order to present Census data in the report, values from individual blocks, block groups, and/or tracts were summed and percentages calculated; no data or statistical manipulations were performed.

It is important to note that Census data is self reported; that is, residents are asked to fill in questionnaires regarding race, age, education, disability status, etc. Census data represent, in part, how residents interpret and respond to each survey question. Additionally, values are reflective of only those residents who returned the Census 2000 questionnaire mailed to their homes. For additional details regarding the collection and presentation of Census 2000 data, refer to the document “Census 2000 Basics,” available from the U.S. Census Bureau online at: <http://www.census.gov/mso/www/c2000basics/00Basics.pdf>.

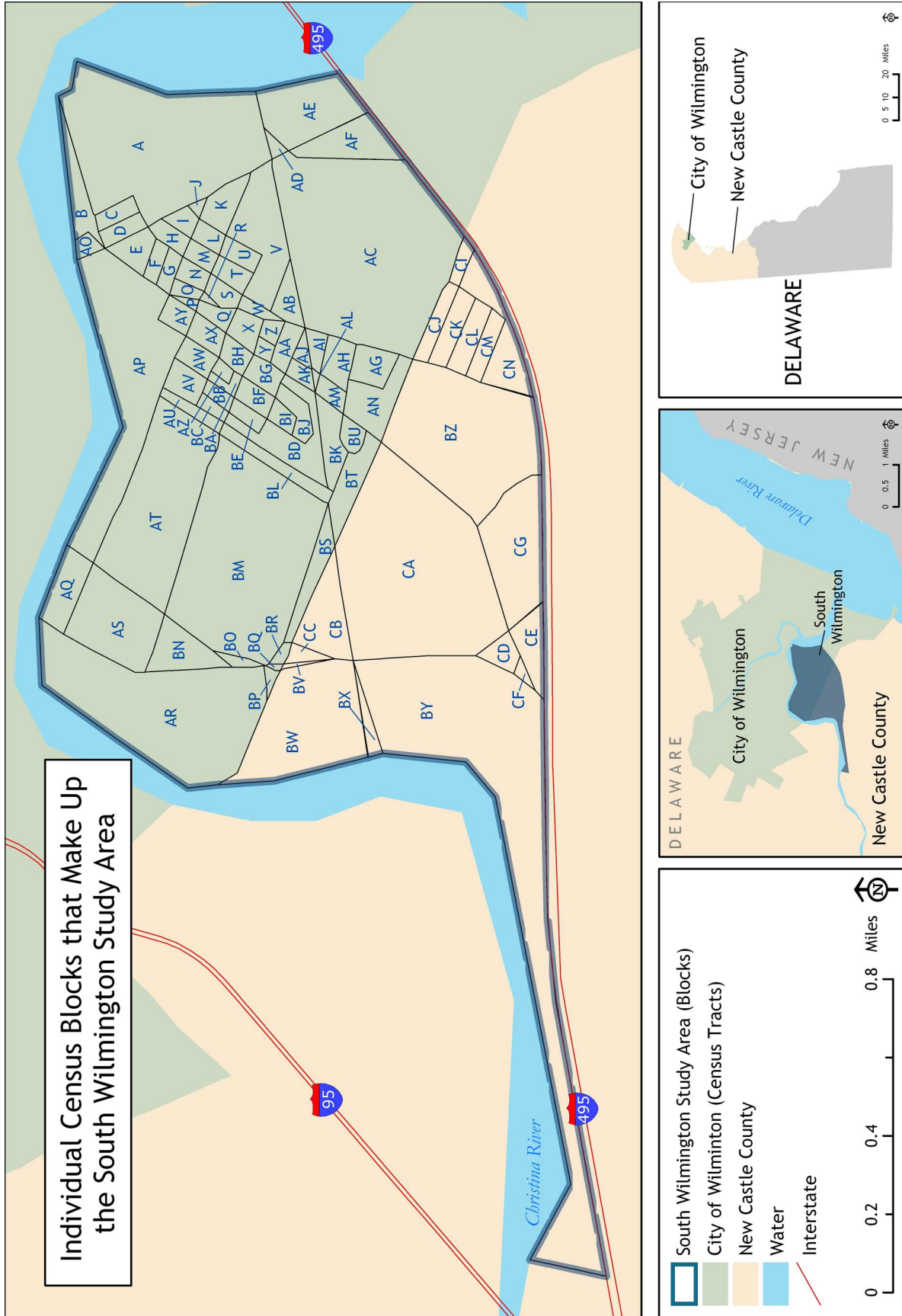


Figure 1.3. The 91 Census blocks selected to represent the South Wilmington blocks-level study area. *Sources: Delaware Department of Transportation, 2001; U.S. Census Bureau, 2000*

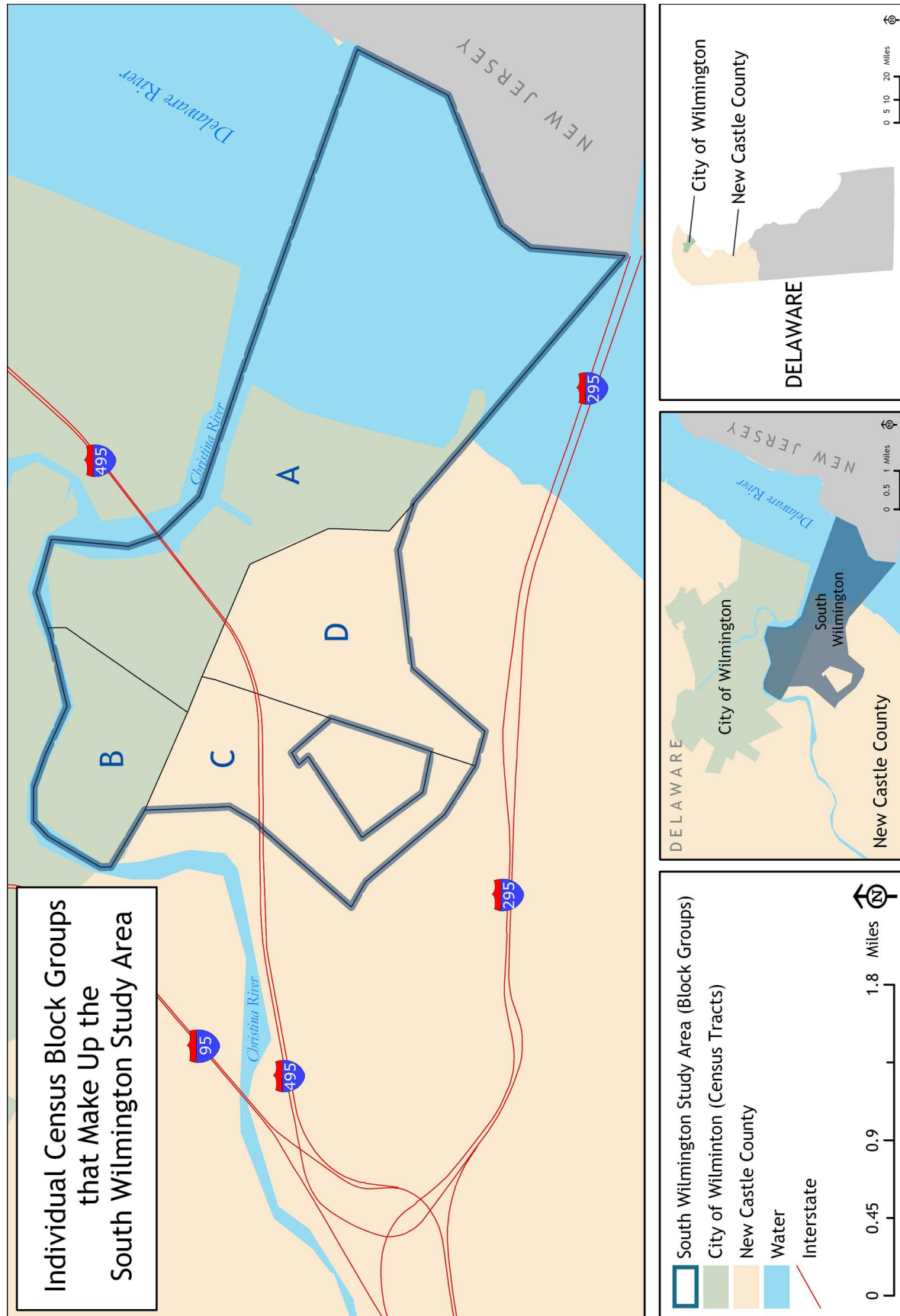


Figure 1.4. The four Census block groups selected to represent block groups-level study area.
 Sources: *Delaware Department of Transportation, 2001; U.S. Census Bureau, 2000*

Other data

Throughout this report, data are included that were collected from a variety of different sources. In all instances, data and sources are cited and/or discussed at the time of data presentation. Additionally, if the data are presented at geographies other than the Census geographies discussed above, maps and/or discussions are included to explain data presentation.

It is important to recognize that the information in this report represents that data from accessible sources. Additional information may be available regarding the resources and services in South Wilmington which were not captured in the accessible data sources and are thus not represented in the report.

Data presentation

Data displays in this report take the form of graphs, tables, and maps, as applicable. Graphs were generated using Microsoft Excel. Maps were generated using ESRI's ArcMap (v. 8.3). Sources for the base maps used throughout the report are as follows:

- ◆ City of Wilmington Census Tracts: U.S. Census Bureau, 2000 (obtained via the STICS Web site)
- ◆ New Castle County: U.S. Census Bureau, 2000 (obtained via the STICS Web site)
- ◆ Interstate and roads: Delaware Department of Transportation, 2001 (obtained from the Delaware Coastal Programs)
- ◆ Water: STICS Web site
- ◆ State(s): U.S. Census Bureau, 2000 (obtained via the STICS Web site)
- ◆ South Wilmington Study Area Block (coarse boundary): U.S. Census Bureau, 2000 (obtained via the STICS Web site)

Data discussion and displays included in the report were selected to summarize findings and to identify key features and data disparities. Note that only relevant, interesting data are discussed and/or displayed in the main body of report.

Data and graphs presented in the report were subject to quality assurance evaluations and the document was reviewed by NOS and Delaware Coastal Programs staff. Members of the Ecological Characterization Workgroup also reviewed and provided feedback on the document. Additionally, Kevin Coyle; James Brunswick; Wayne Brown; Don Berry; Tigist Zegeye; Rosalind Kotz; and Phillips Preiss Shapiro Associates, Inc. provided comprehensive reviews of the report.

1.d. Overview of South Wilmington Environmental Characteristics

This section includes brief overviews of the physical and environmental characteristics of the South Wilmington study area. For a more detailed discussion of the environmental conditions and issues in South Wilmington, please refer to the complete South Wilmington SAMP Ecological Characterization.

The Christina River watershed

South Wilmington is located within the Christina River Basin, which occupies 565 square miles in Pennsylvania, Maryland, and Delaware and includes four major watersheds. The South Wilmington area is located within the Christina River watershed (78 square miles) and the tidal Christina River subwatershed (22 square miles) (Water Resources Agency, 1998).

Overall, waters in the Christina River Basin, including ground and surface waters, supply 75 percent of public water for residents in New Castle County, Delaware (Water Resources Agency, 1998). To the City of Wilmington, the Christina River watershed provides public and industrial water supplies, with the bulk of water sourced from surface waters due to thin (low-yield) aquifers in the area (Kauffman, Wozniak, & Vonck, 2003). The Christina River also provides recreational opportunities, such as fishing and boating, and transportation for ocean-going vessels through the Port of Wilmington.

Water quality

The Christina River watershed is subject to a host of water quality problems, caused largely by urban runoff, hazardous/superfund sites, and combined sewer overflows.

The tidal Christina River subwatershed was characterized in 1998 as having extremely high total suspended sediment (TSS) loads (Water Resources Agency, 1998). TSS is often used as an environmental indicator of watershed health; in high concentrations, sediment suspended in the water column can be a source of water quality problems, such as water treatment issues, habitat loss, and impairment of recreational uses. Additionally, many pollutants such as metals, nutrients, and toxins bind to sediment and enter the water column during runoff. A TSS load above 600 pounds per acre per year (lb/ac/yr) is considered “high.” With a TSS of 928 lb/ac/yr, the tidal Christina River subwatershed had the second highest TSS load in the entire Christina River Basin (Water Resources Agency, 1998).

As urban development increases, the amount of land covered with impervious surfaces also increases, causing environmental problems such as water pollution and flooding. Impervious cover includes man-made surfaces, such as buildings, roadways, or pavement, into which water can not infiltrate and therefore runs off to the nearest waterbody. Studies indicate that water quality, habitats, and wetlands suffer when greater than 10 to 20 percent of an area is covered by impervious surfaces; of the tidal Christina River subwatershed, 44 percent is impervious cover (Water Resources Agency, 1998).

Using several criteria, including TSS and percent impervious cover, in 1998, the tidal Christina River subwatershed was one of thirteen Christina River Basin subwatersheds identified as having a “high pollution potential” (Water Resources Agency, 1998).

The Christina River watershed also exhibits high levels of bacteria, iron, phosphorus, and polychlorinated biphenyls (PCBs) (Water Resources Agency, 1998). Within South Wilmington, surface water samples showed notable levels of aluminum; iron; lead; PCBs; and metals, including arsenic, chromium, cyanide, and mercury. Additionally, ground water samples near industrial sites in South Wilmington showed levels of arsenic, iron, and manganese that exceeded risk-based concentrations (Breslin, 1996).

Surface geology and soil

The South Wilmington area is located within the Atlantic Coastal Plain Province, which is dominated by sands, gravels, and clays. Like many urban areas, most of the original soils in the South Wilmington area have been extensively disturbed, making classification of the soils difficult (Breslin, 1996). Surface geology in South Wilmington is predominately unconsolidated coarse to fine sand capped with silts and wetland fill deposits, which are man-made deposits created in attempts to turn saturated “wetlands” into developable land (DGS, unpublished). A small portion of the South Wilmington area is undisturbed wetland, including the “Southbridge Marsh,” an area of silty clays near the center of the area (DGS, unpublished).

Historical heavy and light industrial and commercial activities in South Wilmington have likely resulted in soil contamination (Breslin, 1996). Soils sampled near South Wilmington industrial sites contained elevated concentrations of arsenic, lead, chromium, and other inorganic materials (Breslin, 1996). Additionally, samples taken from South Wilmington scrap salvage yards contained PCBs above industrial and residential risk levels deemed acceptable by the U.S. Environmental Protection Agency (Breslin, 1996).

Climate and weather

South Wilmington has a mid-latitude, continental marine climate, meaning it is humid with moderate temperatures. From 1930 to 2003, the average annual precipitation for the area was 42.6 inches (Delaware State Climatologist, 2005). The area is most susceptible to winter storms, thunderstorms, and flooding. The area experienced over 80 floods or flash floods between 1977 and 2004 (NWS, 2005). Problems associated with excessive rainfall are compounded by the high percent area covered by impervious surfaces. Plans to improve drainage in South Wilmington will be explored in the Drainage Improvement Plan portion of the SAMP.

1.e. Organization of the Rest of this Report

The remainder of this report is organized into eight additional chapters, with each chapter presenting data on a specific topic. The introduction for each chapter includes a discussion of the data presented in the chapter and a box summarizing key numbers or information for South Wilmington. The remaining chapters include the following:

Chapter 2: Demographic and housing characteristics: Census blocks-level presentation. This chapter presents U.S. Census 2000 demographic and housing data for the South Wilmington study area, as delineated by the Census blocks shown in Figures 1.3.; the chapter also includes comparative data for the City of Wilmington and New Castle County. Data presented in Chapter 2 include the following for each of the three areas: population size and density, racial composition, age and gender distribution, household types, head of household characteristics, household size, characteristics of households with children, vacancy of residential housing units, and residential housing units occupancy (owner- versus renter-occupied).

Chapter 3: Demographic characteristics: Census block groups-level presentation. This chapter presents U.S. Census 2000 demographic data for the area defined by the South Wilmington Census block groups shown in Figure 1.4., as well as comparative data for the City of Wilmington and New Castle County. Data presented in Chapter 3 include the following for each of the three areas: population size and density, racial composition, age and gender distribution, educational attainment, school enrollment, household types, household size, resident household characteristics, characteristics of households with children, household language, and disability characteristics.

Chapter 4: Employment and residential income characteristics: Census block groups-level presentation. This chapter presents U.S. Census 2000 employment and residential income data for South Wilmington for the area defined by the block groups shown in Figure 1.4., as well as comparative data for the City of Wilmington and New Castle County. Data presented in Chapter 4 include the following for each of the three areas: employment status, employment by industry, journey to work, Armed Services status, household income, retirement and social security income, public assistance, and poverty status.

Chapter 5: Residential development: Census block groups-level presentation. This chapter presents U.S. Census 2000 residential housing data for South Wilmington, as defined by the block groups shown in Figure 1.4. Data presented in Chapter 5 include the following: housing unit occupancy, housing unit property values, housing unit mortgages, housing unit rents, housing unit sizes, housing unit ages, resident tenure, housing unit facilities and utilities, and residential vehicle availability.

Chapter 6: Land use. This chapter presents information on land use characteristics for South Wilmington, following the geography defined by the Census blocks shown in Figure 1.3. Information in Chapter 6 describes 2002 land use and zoning patterns in South Wilmington.

Chapter 7: Business establishments. This chapter presents ESRI Business Information Solutions data for businesses in South Wilmington, as defined by the geography illustrated in the Census blocks shown in Figure 1.3. The data in this chapter represent values or estimates for the year 2005. Data presented in Chapter 7 include the number of service, retail, and other businesses in South Wilmington and the number of employees working within South Wilmington.

Chapter 8: Public and community development and services. This chapter presents information collected from a variety of sources on public and community development and services available within, or in close proximity to, South Wilmington as defined by the geography illustrated in the Census blocks shown in Figure 1.3. The data presented represent values from different years; please refer to the text and/or captions to determine the age of each data item. Information presented in Chapter 8 includes the location and/or services provided by the following: roads, public transportation, rail, airports, ports, childcare and early childhood education organizations, public secondary schools, institutions of higher learning, libraries, courthouses, government offices, senior living and centers, places of worship, health care facilities, City of Wilmington Public Works, civic and neighborhood organizations, water and sewer lines, and parks and recreation.

Chapter 9: Crime, voting, and vital statistics and property tax assess values. This chapter provides crime statistics, voting and district information, vital statistics, and property tax assess values for the South Wilmington area. Information is included in this chapter because it was available only at geographies that differ from the geographies defined by the Census blocks and block groups used in previous chapters; specific data sources and geographies are discussed within the chapter.

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